

Five New Species of Coleoptera (Cleridae, Elateridae, Buprestidae and Cerambycidae).

By JOSEF N. KNULL, Hummelstown, Pennsylvania.

Cymatodera neomexicana n. sp. (Cleridae.)

Light brown above and below, with a median transverse yellow band.

Head finely punctured; moderately pubescent; eyes not prominent; antennae reaching humeral angles of elytra, joints two to ten sub-equal in length, joints five to ten feebly serrate, eleventh joint about twice the length of tenth.

Pronotum nearly twice as long as wide, wider in front than at base, widest in middle, ante-scutellar impression small with a feeble tubercle each side; surface very finely and densely punctured; moderately clothed with long and short pubescence. Scutellum small, pubescent.

Elytra nearly twice as wide as base of pronotum; sides sub-parallel, feebly divergent posteriorly, apices rounded to suture; punctures coarse, deep, closely placed, gradually decreasing in size posteriorly, becoming obsolete near apices; intervals flat, punctures minute; moderately clothed with hairs of varied lengths; wings present.

Body beneath shining, sparsely pubescent; punctures of abdomen fine; legs clothed with slender hairs of varied lengths.

Length 8 mm.; width 2.5 mm.

♂.—Last ventral segment broader than the last dorsal, the sides of the former reflexed partly enclosing the latter; fifth ventral deeply emarginate; sixth ventral about as long as broad; sides sub-parallel, the angles produced into short spines, between which the apex is bisinuate emarginate, a longitudinal carina in middle and an oblique one on each side, running to points; fifth dorsal segment deeply emarginate, narrower than corresponding ventral.

Type, a male labeled NEW MEXICO, in the collection of the writer.

According to Wolcott's key¹ this species would come under the *knausi-morosa* group, near *longula* Wolcott.

Limonijs ovatus n. sp. (Elateridae.)

Moderately robust, shining dark brown in color, beneath slightly lighter.

Head with front convex; surface coarsely punctured; clypeal

¹ A. B. Wolcott, Proc. U. S. Nat. Mus. 59: 269-290, 1921.

margin truncate, slightly emarginate in middle; second joint of antennae cylindrical, nearly twice as long as wide, third joint cylindrical, one and one-half times length of second, fourth and following joints serrate slightly longer than third.

Pronotum longer than wide, broader at base than at apex; sides nearly parallel, broadly rounded anteriorly, slightly sinuate near hind angles; prehumeral carinae distinct; surface coarsely punctured, clothed with rather long suberect pubescence. Scutellum nearly round, pubescent.

Elytra with sides nearly parallel in basal two-thirds, broadly rounded to rounded apices; surface striato-punctate, punctures small; interspaces more finely punctured; clothed with short suberect pubescence.

Abdomen finely punctured, pubescence short; prosternal sutures distinctly grooved in front.

Length 10 mm.; width 2.5 mm.

Described from a specimen labeled Laguna, CALIFORNIA, August 8, in writer's collection. A *paratype* from the same locality labeled August 23.

According to Van Dyke's key² this species would run to *L. griseus* Beauv. It can readily be separated by the smaller size, more slender form and lack of dense pubescence.

***Athous paradisus* n. sp. (Elateridae.)**

Dark brown, head and thorax piceous, resembling the dark form of *A. pallidipennis* Mann., form more slender.

Head densely coarsely punctured, front deeply impressed, with prominent clypeal margin; clothed with dense pubescence which is longer in depression; antennae reaching to apical third of elytra, second joint small, about as long as broad, third joint nearly three times as long as second, fourth joint length of third.

Pronotum longer than wide, wider at base than at apex; hind angles short, broad and ear-like; sides broadly rounded anteriorly, subparallel in middle, slightly sinuate toward base; hind angles without carinae; a lateral oblique depression on each side in middle; surface finely densely punctured, pubescence dense. Scutellum nearly round, pubescent.

Elytra with sides parallel on basal two-thirds, then broadly rounded to rounded apices; surface striato-punctate, intervals finely punctured; clothed with short suberect pubescence.

Abdomen finely densely punctured; first joint of anterior

² E. C. Van Dyke, Proc. Calif. Acad. Sci., 20, No. 9, pp. 291-456, 1932.

tarsi as long as two following joints, first joint of middle and posterior tarsi longer than the two following joints; joints of tarsi on all feet decreasing in length from first to fourth, anterior tarsi with second joint nearly cylindrical, third but slightly lobed beneath, fourth somewhat more elongate.

Length 10 mm.; width 3 mm.

Described from a male specimen labeled Paradise Park, White Mountains, ARIZONA, July 15, D. K. Duncan collector. *Type* and *paratypes* from the same locality in writer's collection.

According to VanDyke's key² the species runs to *A. pallidipennis* Mann., but it is smaller and less robust. There is an oblique carina near the apex on each lateral lobe of the aedeagus, whereas in *A. pallidipennis* Mann., it is more parallel to the sides.

***Agrilus arizonus* n. sp.** (Buprestidae.)

Form robust, bronze, beneath more shining than above, sides of pronotum and each elytron clothed with short, recumbent, white pubescence.

Head convex, with a moderately deep depression extending from occiput to epistoma; surface rugose, depression containing recumbent white pubescence; antennae extending to about middle of pronotum, serrate from the fifth joint.

Pronotum wider than long, wider at base than at apex, widest about middle; sides broadly rounded from apex toward base, sinuate near hind angles; marginal carina strongly sinuate, submarginal carina slightly sinuate, inferior near hind angles; the two carinae separated and not touching at any point; anterior margin broadly rounded, slightly sinuate; disk convex, with a slight indication of a median depression extending from scutellum to middle, lateral depressions well marked; prehumeral carinae strong, sinuate, enlarged anteriorly; surface transversely rugose, lateral depressions clothed with white recumbent pubescence. Scutellum distinctly transversely carinate, surface reticulate.

Elytra at base as wide as base of pronotum, constricted near middle, expanded behind middle; sides broadly sinuate, tips obliquely rounded; disk slightly flattened, sutural margins elevated in apical third; surface coarsely imbricate, clothed with short recumbent pubescence, longer white hairs of same type forming a dense white sutural vitta on each elytron.

Abdomen beneath finely, sparsely punctate, clothed with recumbent white pubescence which forms dense patches along the sides of the last three segments.

Prosternum broadly emarginately truncate. Tarsal claws cleft, the inner teeth broad and not turned inward, Pygidium carinate, carina not projecting.

Length 6.5 mm.; width 1.5 mm.

Described from a female labeled, White Mountains, ARIZONA, August 28, D. K. Duncan collector. *Type* in writer's collection.

According to Fisher's key,³ this species would run to *A. felix* Horn. It is distinguished from this species by the pronotum being wider than long, and the surface being less rugose. The marginal and submarginal carinae are separated their entire distance in *A. arizonus*, whereas in *A. felix* Horn they are joined back of the middle.

Elaphidion (Anoplium) magnipunctata n. sp. (Cerambycidae.)

Moderately robust, shining dark brown in color, superficially resembling *A. imbellis* Lec.

Head with large punctures moderately spaced; eyes prominent, coarsely granulate; antennae extending to apices of elytra when laid back over dorsal surface, first three joints cylindrical, others somewhat flattened, second joint small, slightly longer than wide, third joint about four times length of second, fourth joint shorter than third, fifth joint longer than fourth, joints five to ten of about equal length, last joint longer than tenth, joints three to seven inclusive containing small spines on the inside which gradually decrease in size toward the outer joints; joints five to ten with prominent acute angles on the outside; antennae coarsely punctured, sparsely pubescent with short hairs, intermixed with a few long flying hairs.

Pronotum about as long as broad, widest in apical half, constricted at base and apex; sides broadly rounded in front, nearly parallel in middle, then subparallel to base; surface coarsely punctured, punctures becoming smaller and confluent on sides, an irregular median basal callous; pubescence sparse and inconspicuous. Scutellum small, densely pubescent.

Elytra with sides nearly parallel, broadly rounded toward tips, apices rounded to suture; surface covered with coarse,

³W. S. Fisher, U. S. Nat. Museum, Bull. 145, pp. 1-347, 1928.

widely separated punctures, which become obsolete toward apices; pubescence short and inconspicuous.

Ventral surface lighter in color than above; abdomen sparsely punctured with very fine punctures, a long hair arising from each depression.

Length 14 mm.; width 3.5 mm.

Described from a specimen labeled Grant County, NEW MEXICO, July 15, R. T. Kellogg collector. *Type* in writer's collection.

The Sexes of *Harroweria gloriosa* Hebard (Orthoptera; Tettigoniidae; Phaneropterinae).

By MORGAN HEBARD.

On September 9, 1932, an orchid plant (*Oncidium stipitatum*) was shipped from the Canal Zone, Panama, to Hawaii, which plant was found to be bearing a number of eggs of a katydid. From these O. H. Swezey reared the larval and the adult specimens described below. The eggs hatched in Honolulu from March 20 to April 13, 1933, and adults matured from May 26 to July 2 of that year. Eight males and three females were reared to maturity, eight immatures being preserved to show the six instars through which the insect passes before the adult condition is reached. The species proves to be *Harroweria gloriosa* Hebard, of which a color figure of the unique female type was printed at the time of original description.¹

The immatures in their earliest instar bear only one of the hairy sections of the antennae characteristic of the species. In the next instar two such sections are present and in the following instars three or four (as in the adults). The earliest instars are black with a small greenish white mark meso-dorsad on the caudal femora, but later all the markings shown by adults on the body and limbs appear.

The most interesting feature which the series reveals is the fact that the adult male has an entirely different tegminal and wing coloration from that of the adult female. Such sexual dimorphism is so very rare in the Orthoptera that any specialist

¹Trans. Amer. Ent. Soc., LIII, p. 89, pl. XVIII, fig. 2 (1927).